WHAT IS CLAIMED IS

- A method of fabricating a solid-state imaging device comprising the steps of forming a metallic light-shield film on a light receiving sensor and a transfer electrode
 formed on a surface layer of a wafer, forming an opening on the metallic light-shield film on the light receiving sensor by etching, forming an interlayer film, and shaping the interlayer film to be a lens shape by heat treatment, wherein:
- an atmosphere of either one or both of oxygen gas
 and ozone gas is prepared in a chamber for forming said
 interlayer film, and

a surface of said metallic light-shield film is oxidized before said interlayer film is formed.

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2. The method of fabricating a solid-state imaging device as claimed in claim 1, wherein a temperature in said chamber is set to 500°C or lower.